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RESEARCH AND COORDINATION UNIT IN THE AREA OF OCCUPATIONAL
NEEDS RESEARCH COORDINATION IN NEBRASKA. FINAL REPORT.

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THE PRELIMINARY WORK OF THE NEBRASKA
VOCATIONAL-OCCUPATIONAL RESEARCH COORDINATING UNIT WAS
DESCRIBED. THE PRIMARY CONCERN OF THE UNIT WAS THE
COORDINATION OF EFFORTS WHICH PRODUCE DATA, INFORMATION, AND
THE PRODUCTS OF RESEARCH, TO FACILITATE DECISION-MAKING
PROCESSES RELATING TO VOCATIONAL AND TECHNICAL EDUCATION
PROGRAMS AT STATE AND LOCAL LEVELS. THE UNIT'S MAIN ENDEAVOR
WAS THE DEVELOPMENT AND TEST OF A SYSTEM FOR PROJECTING NEEDS
OF VOCATIONAL AND TECHNICAL EDUCATION AND FOR CORRELATING
THESE NEEDS WITH OTHER ASPECTS OF EDUCATIONAL ENTERPRISES.
THIS SYSTEM WAS CALLED THE "PUPIL DATA ENROLLMENT BANK." (JH)

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
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Introduction - During the first funding period, Nebraska RCU has had experience which has led to expanding the base of the operational framework. Many of the problems of concern have been attacked most effectively from the totality of the educational enterprise in the state. This broadened base which has been established is enabling the Nebraska RCU to cooperate effectively with other agencies. Personnel have also been able at the same time to envision models which enable the offering of a specific service to vocational education. Primarily Nebraska's RCU concern has been with the coordination of efforts which produce data, information, and the products of research which facilitate the decision making process as it relates to vocational and technical education at the state and local levels.

The Unit's initial obligation has been to assume the leadership for the development and stimulation of programs of research which affect the operation of programs and policy making. Specific effort has been directed toward legislative aspects of the vocational and technical education programs. Discussion has been conducted with the chairman of the educational committee of the state legislature and with the chairman of the budget committee.

Nebraska RCU's main endeavor has been to develop and test the system for projecting needs for vocational and technical education. These needs have then been correlated with other aspects of the educational enterprises. If this system has been developed adequately, state support will be forthcoming.

REVIEW OF RELATED RESEARCH

Related research was surveyed for the study entitled "The Anatomy of Decision Making as It Relates to Occupational and Educational Choices of Rural Youth." Examination was made concerning the development of theories of decision making, forces which mitigate against the free operation of the decision-making process, and the possibilities of changing social, economic and educational conditions to facilitate choices.

This review has revealed that there are numerous studies which can serve as the basis for developing an integrated theory or set of theories regarding the decision-making process as it relates to the occupational and educational choices and actions of rural youth.

Complete review has been done of a Nebraska study entitled, "An Analysis of the Occupational Distribution and Competencies Needed by Employees in Nebraska with Implications for Vocational Education." This study which was compiled by RCU Director Dr. James T. Horner was designed to obtain information regarding the jobs held by 1500 sampled, employed Nebraska adults. The study also determined these workers' competencies, knowledge, and skills needed for the jobs.

METHOD - UNIT PROJECTS

One of the most significant accomplishments completed by the Nebraska Research Coordination Unit is the pupil data enrollment bank. This project has been conducted in cooperation with the State Department of Education. Magnetic tape files containing the annual term summary records for each Nebraska school district have been edited, sorted and merged into a material file. The programs have been written to retrieve the records containing original fall enrollment figures, to summarize these data by county and statewide basis, and to make projection. The projected enrollment by grade have been based on the completion of grade-rate progression ratios with two methods employed to project the expected ratios: namely, use of the average ratio for each grade, and use of leased squares linear regression equation for each grade. Printouts were made available to Higher Education Facilities Commission.

The Commission in turn will make available data from each college in the state identifying each student's home county and make these data available to the Research Coordinating Unit for inclusion in the data bank. Magnetic tape files containing the enrollment figures by course and grade have been edited, sorted and merged. The program of retrieving and summarizing these data by county, year, and subject matter course has been written and is now in the process of de-bugging. Magnetic tape files containing the remainder of the data have been partially edited and sorted. Form B operation, namely transfer from card to tape procedure, are complete. A total of approximately 450,000 records are now on tape in various stages of editing and sorting.

Nineteen educational service units were established in 1965 by the Legislature of Nebraska as a vehicle to establish extended educational programs to schools in each unit. Educational Service Unit Number 17, located in northwestern Nebraska, covers a five county area. RCU has worked intensively with the directors of the Title III ESEA project at Alliance, Nebraska. Assistance has been extended in total program development but, more specifically, in assisting Unit 17 with their development of the vocational educational program. Nebraska's Department of Labor has been cooperating with RCU by sharing their collected data with public education in the state.

Concern has been centralized in that community resources be efficiently utilized. Directors of this Title III project were concerned with the assessment of employment opportunities as a basis for projecting vocational education programs in the five county area.

The State Department of Labor conducted an area skills survey in eleven counties of western Nebraska. RCU personnel made arrangements for this survey in addition to establishment of close contact with the

Title III directors. Questions concerned with the level of education and needed specialized training for the program were supplied. Data from the area skills survey have been utilized in the vocational and technical education plan. This project has extended the opportunity to construct and perfect a service unit model.

RCU personnel assisted the directors of Educational Service Unit 17 in preparing a proposal for their operational grant. This cooperative venture extended to our unit the opportunity of writing a section of the proposal to deal with an exemplary program of vocational education and to integrate it with the total operational grant.

Consultation has been made with the Alliance Board of Education regarding a developmental program in vocational and technical education in their district. The Alliance Schools Corporation was granted \$80,000 by the State Board of Vocational Education for the constructing of a vocational education building. Money was made available by the area vocational education section of the Vocational Education Act of 1963. We anticipate that the new structure will demonstrate a radically new department in facility planning. This flexible building under contract will be integrated with a flexible programming for vocational and technical education.

An economic opportunities study for the State of Nebraska has generated much interest. Overall changes in the income, population, and labor force characteristics of the Nebraska economy have provided sweeping insights into the long-term performance of the economy of the state.

This analysis has identified some weaknesses in the Nebraska economy. Throughout most of the six decades covered by this study, the Nebraska economy has not been as active a participant in the economic mainstream of the nation as might be desired. The slower rate of economic growth in Nebraska relative to national progress has many implications including large amounts of human capital out-migration, inadequate job opportunities, income levels and growth rates substandard to those experienced at the national level, lower than national average expenditures in support of education and the export of financial capital.

Developmental work for a Nebraska community model has been conducted with community leaders becoming involved in the development of vocational and technical educational programs through a self-analysis process. The process has coordinated area, state, regional, and local data in the determination of local needs.

Numerous meetings were held with the local coordinating Committee to formulate and assemble, and evaluate collected information. Area skill survey information, Nebraska economic information, and local community data were reviewed from this study by the State Department

of Vocational Education. All of the segments of the local vocational needs study have been completed with all relative data compiled into a final statistical summary. The next step in completing this project is to formulate the community model.

Two RCU authored papers were presented August 4, 1966 at the Central Region Research Conference in Agricultural Education. Featured were papers entitled "A Practical Approach to Dissemination" and "The Role of the Research Coordinating Unit in Vocational Education." These two papers represent direct contributions to two areas, the first area being that of establishing the role of RCU as experienced from a year's operation and the second, a practical approach to disseminating educational research findings.

Determination of the vocational education needs in a local Nebraska school district has been conducted on a pilot basis in the community of Auburn, Nebraska. Special meetings with the local director have assisted in the completed summary report. This study is presently in the process of being reviewed by the State Division of Vocational Education. Members of the RCU staff believe certain elements may be utilized from this study in construction of the model which will determine manpower needs which affect the youth in local communities.

One of the concerns of the RCU was the utilization of labor, census and economic information data by local school corporations in the planning of their vocational education programs. In an effort to determine the extent to which various types of presently available data could be used, material from the various sources cited above was organized for use in the Auburn community. The State Department of Labor Skill Survey the 1960 Census, Department of Commerce economic area data, and data from Dr. Wykstra's dissertation were used. The material relating to short term occupational and industrial growth from the several sources appeared to have the most value for the local school corporation. As a result the over all aspect of determining vocational program needed in local schools from existing data seems to be showing real promise. Instead of limiting the decision of local vocational program offering for one school system, it could be possible to project specific vocational educational needs for an entire economic area with similar prevailing economic and occupational conditions.

An anticipated objective of the Nebraska RCU is to design a model which, with the predesigned inputs from the occupational labor force, census and the economic trends of the state and region, will provide an index which reports business and industrial activity in the state monthly. The "Opportunity Index" will not be updated nearly as often as monthly. Actually once yearly at the time of the first of the year would be valuable in planning and reorganizing vocational offering for the following year. Such an index would be most valuable to

the State Vocational Schools and Area Vocational Schools which are most anxious to keep up to date in meeting state vocational needs.

Industry in Nebraska would also be a prime benefactor as their needed working force would be more readily available.

Preliminary steps have been taken for the issuance of a monthly newsletter. This publication will be another means to disseminate current findings relative to the areas of vocational and occupational needs.

Periodic meetings are being conducted with personnel in vocational oriented fields as well as those in related fields. These sessions constitute a major portion of the RCU regular weekly orientation meetings.

A considerable amount of emphasis was placed on research dissemination during the 6th quarter period. A number of research and informational releases from the Nebraska RCU along with other vocational research studies from other RCUs were submitted to the Department of Information, University of Nebraska. A new staff member was added to the Nebraska RCU in the person of James Buterbaugh with the assignment of Dissemination Specialist and Technical Writer. It is expected that continued and increased emphasis on Dissemination of Research findings will be emphasized throughout the renewal funding period.

Another effort which was initiated during the 6th quarter of activity was a concerted emphasis in seeking supplementary funding of the Nebraska RCU during future operational periods beyond the renewal period. Two meetings were held with Assistant Commissioner C.E. Stanley to explore possibilities of utilizing other vocational funds for supporting vocational research activities. An important meeting was held with members of the Nebraska legislative budget and Education Committees along with representatives of the State Department of Labor and Vocational Education. A summary of the Nebraska RCU accomplishments were explained in terms of benefits to Nebraska agencies and the Legislature. Other action steps were also discussed.

At the request of the Board of Education of the Lincoln Public Schools to the Research Coordinating Unit the following proposal entitled, "A Pilot Study Applying the Critical Incident Technique to the Lincoln Public School Guidance Program for the Purposes of Evaluation", was developed:

1. The development of an instrument adapting Flanagan's technique of critical incident to the problem posed by the Lincoln School Board.

2. The administration of the instrument to the senior classes of the three Lincoln Public high schools (classes were randomly sampled).

The results were tabulated and submitted to the Board of Education of the Lincoln Public Schools for further decisions to be made as to the analysis of data and the development of further research.

The instrument was developed, the results were tabulated, and a decision was made as to further use of the data.

The preliminary study conducted by the RCU staff (John Coster, Co-Director; Ken Shibata, Coordinator; Marlene Stagemeyer, Graduate Assistant; Wayne Schroeder, Labor Market Analyst; and Dewitt Harouff, Graduate Assistant) fulfilled its obligation of developing the instrument and administering it. This constitutes Phase I of a three phase project. Because of a change in the RCU staff organization, Phase II of the project, the analysis of data, and Phase III of the project, the development of a proposal to apply the findings on a National level, will be conducted by appropriate agencies and/or personnel selected by the Lincoln Board of Education.

Enclosed are copies of the instrument and the instructions for the administration of the instrument.

RESULTS

Nebraska is predominantly an agricultural state when compared with other states in the nation. However, the proportion of the labor force employed in production agriculture has declined to approximately 26 per cent of the present state labor force. Nebraska's net out-migration has been high, and industrialization in the state has not kept pace with the nation to utilize human resources which are released by the expanding agricultural technology.

Nebraska shows an increasing interest in post high school programs of vocational and technical education. Continual development of the models will help provide the necessary information to demonstrate that investments in vocational and technical education will have the effect of increasing a person's per capita and total income. The state needs to pursue this dual problem -- one concerning investments in human capital resources, and the second toward the investments of state resources in natural resource development together with industrial and commercial development.

With the preliminary work in economic research being complete, Nebraska's RCU is in a position to stimulate additional work which can utilize data from the Department of Labor and other sources to depict the status of the structure of the labor force. Research

efforts can then be conducted to study needed changes in the structure which are needed to produce increments in total income and per capita income.

Preliminary evidence has indicated that Nebraska is typical of the mid-plains states in that unemployment is relatively low, but underemployment is one of the realistic problems of the state. Vocational and occupational training is needed to upgrade the general level of skills. General effort is needed to attract industries which will utilize the human resources available in the state.